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and the flexible display panel 5. The control module 22 is controlled by the user, and through the soft circuit board 23, can transmit control signal to the backlight modules 4 and the flexible display panel 5.

Referring once again to FIGS. 1 to 4, when the casing panels 32 are in the folded position, the foldable intermediate section 52 of the flexible display panel 5 is folded to extend upward the side panel sections 51, the backlight modules 4 are spaced apart in a left-right direction, and the side panel sections 51 are also spaced apart in the left-right direction. Further, portions of the backlight modules 4 project downwardly beyond a bottom end of the foldable intermediate section 52 into the receiving space 314. Moreover, because the coupling frame 21 is connected pivotally to and is disposed between the carrier plate 211 and one of the casing panels 32, the user can turn inwardly both the coupling frame 21 relative to said one of the casing panels 32 and the carrier plate 211 relative to the coupling frame 21 so as to dispose the control module 22 and the carrier plate 211 between the side panel sections 51 of the flexible display panel 5. At this time, the size of the electronic device 100 is reduced to facilitate storage thereof by the user, as best shown in FIG. 1. Additionally, because the casing panels 32 are disposed externally of the flexible display panel 5, the backlight modules 4, and the control module 22, the effect of protecting the flexible display panel 5, the backlight modules 4, and the control module 22 by the casing panels 32 can be achieved.

With reference to FIGS. 5 and 6, on the other hand, each connecting end 311 of the connecting member 31 is further formed with a first positioning hole 316, and a second positioning hole 317 proximate to an outer side of the first positioning hole 316. The first and second positioning holes 316, 317 communicate with one of the pivot holes 315 in one of the connecting ends 311. The pivot unit 322 of each casing panel 32 has one end that is formed with a mounting groove 324 and that has a ball-shaped retaining element 325 disposed in the mounting groove 324, and a biasing spring 326 disposed in the mounting groove 324 to bias the retaining element 325 outwardly. When the casing panels 32 are in the folded position, the mounting groove 324 is aligned with the first positioning hole 316, and the biasing spring 326 biases the ball-shaped retaining element 325 to move out of the mounting groove 324 and engage the first positioning hole 316. Through this configuration, the casing panels 32, the backlight modules 4, and the flexible display panel 5 are retained in the folded position. Further, when the casing panels 32 are retained in the folded position, the side panel sections 51 of the flexible display panel 5 are parallel to each other. Hence, a curvature of the foldable intermediate section 52 of the flexible display panel 5 can be consistently maintained and ensured every time the flexible display panel 5 is folded, thereby reducing the possibility of the foldable intermediate section 52 being damaged or degraded due to frequent change in the curvature.

With reference to FIGS. 7 to 10, to rotate the casing panels 32 from the folded position to the unfolded position, the casing panels 32 are turned in the direction of arrows (I, II), respectively. When the retaining element 325 moves away from the first positioning hole 316 and retracts into the mounting groove 324 to compress the biasing spring 326, the casing panels 32 can move the backlight modules 4 and the side panel sections 51 to rotate until the foldable intermediate section 52 of the flexible display panel 5 gradually moves to a flat state. At this time, the mounting groove 324 of the pivot unit 322 of each casing panel 32 is aligned with the second positioning hole 317, and through a restoring force of the biasing spring 326, the retaining element 325 is biased to

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move out of the mounting groove 324 and engage the second positioning hole 317. As such, the casing panels 32, the backlight modules 4, and the flexible display panel 5 are retained in the unfolded position. In the unfolded position, the two backlight modules 4 coplanarly cover the backside of the flexible display panel 5. Through this, the two backlight modules 4 can provide uniform light to the flexible display panel 5, which in turn, can display uniform brightness or luminosity.

Further, with reference to FIG. 2, the user can turn outwardly the coupling member 212 and the carrier plate 211, so that the carrier plate 211 and said one of the casing panels 32 are substantially coplanarly connected. Through this, the user can easily control the control module 22 and simultaneously view pictures displayed on the flexible display panel 5. Alternatively, the carrier plate 211 may be inclined so as to form an included angle with said one of the casing panels 32.

FIGS. 11 to 13 illustrate an alternative form of the first embodiment. When the casing panels 32 of the outer casing 3 are folded, one of the side panel sections 51 of the flexible display panel 5 is shorter than the other side panel section 51. Through the below structural configuration, when the casing panels 32 are rotated to the unfolded position, the two backlight modules 4 can also coplanarly cover the backside of the flexible display panel 5.

One of the casing panels 32 further has a pair of slide grooves 327 (only one is visible in FIG. 11) disposed at two opposite sides of the recess 320 and extending in a left-right direction. A longer one of the side panel sections 51 is fixed to one of the backlight modules 4. A shorter one of the side panel sections 51 is slidable relative to the other one of the backlight modules 4, and has two opposite ends 511 connected slidably and respectively to the slide grooves 327. The short side panel section 51 is slidable in the slide grooves 327 through a guide rail or guide roller. When the casing panels 32 are rotated from the folded position to the unfolded position and the short side panel section 51 is slidable relative to the casing panel 32, the two backlight modules 4 can coplanarly cover the backside of the flexible display panel 5.

FIGS. 14 and 15, in combination with FIG. 11, illustrate another alternative form of the first embodiment. In addition to one of the side panel sections 51 of the flexible display panel 5 being shorter than the other side panel section 51, one of the backlight modules 4 is longer than the other backlight module 4. Through the below structural configuration, when the casing panels 32 are rotated to the unfolded position, the two backlight modules 4 can also coplanarly cover the backside of the flexible display panel 5.

In this embodiment, a longer one of the backlight modules 4 is connected slidably to the recess 320. The long backlight module 4 is slidable in the recess 320 through a guide rail or guide roller. When the casing panels 32 are rotated from the folded position to the unfolded position and the short side panel section 51 is slidably received in the slide grooves 327, the user can push inwardly the long backlight module 4 relative to the casing panel 32 so as to abut against the short backlight module 4. Through this, the backlight modules 4 can also coplanarly cover the backside of the flexible display panel 5 when the flexible display panel 5 is in the unfolded position.

Referring to FIGS. 16 to 20, an electronic device 110 having the display 1 according to the second embodiment of the present invention has an overall structure and operating method similar to that of the first embodiment. The difference between the first and second embodiments resides in the structural design of the connecting member 33 of the outer casing 3.